FILE 'MEDLINE, EMBASE, BIOSIS' ENTERED AT 07:13:36 ON 06 SEP 2002

L1	56175	S EBV OR EPSTEIN BARR VIRUS
L2	297067	S ASSAY AND DETECT?
L3	2347	S L1 AND L2
L4	113164	S LUPUS OR SLE OR SYSTEMIC LUPUS ERYTHEMATOSUS
L5	42	S L3 AND L4
L6	20	DUP REM L5 (22 DUPLICATES REMOVED)
L7	6221	S ASSAY(W)DETECT?
L8	67	S L1 AND L7
L9	37	DUP REM L8 (30 DUPLICATES REMOVED)

This is applicant's - when was it published?

L6 ANSWER 12 OF 20 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 1998015182 EMBASE
TITLE: An increased prevalence of **Epstein-Barr virus** infection in young patients suggests a possible etiology for **systemic lupus erythematosus**.
AUTHOR: James J.A.; Kaufman K.M.; Farris A.D.; Taylor-Albert E.; Lehman T.J.A.; Harley J.B.
CORPORATE SOURCE: J.A. James, University of Oklahoma, Oklahoma Medical Research Foundation, 825 N.E. Thirteenth, Oklahoma City, OK 73104, United States. john-harley@omrf.ouhsc.edu
SOURCE: Journal of Clinical Investigation, (1997) 100/12 (3019-3026).
Refs: 36
ISSN: 0021-9738 CODEN: JCINAO
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
026 Immunology, Serology and Transplantation
LANGUAGE: English
SUMMARY LANGUAGE: English

AB An unknown environmental agent has been suspected to induce **systemic lupus erythematosus (lupus)** in man. Prompted by our recent immunochemical findings, we sought evidence for an association between **Epstein-Barr virus** infection and **lupus**. Because the vast majority of adults have been infected with **Epstein-Barr virus**, we chose to study children and young adults. Virtually all (116 of 117, or 99%) of these young patients had seroconverted against **Epstein-Barr virus**, as compared with only 70% (107 of 153) of their controls (odds ratio 49.9, 95% confidence interval 9.3-1025, P < 0.00000000001). The difference in the rate of **Epstein-Barr virus** seroconversion could not be explained by serum IgG level or by cross-reacting anti-Sm/nRNP autoantibodies. No similar difference was found in the seroconversion rates against four other herpes viruses. An **assay** for Epstein- Barr viral DNA in peripheral blood lymphocytes established **Epstein-Barr virus** infection in the peripheral blood of all 32 of the **lupus** patients tested, while only 23 of the 32 matched controls were infected (odds ratio > 10, 95% confidence interval 2.53-.infin., P < 0.002). When considered with other evidence supporting a relationship between **Epstein-Barr virus** and **lupus**, these data are consistent with, but do not in themselves establish, **Epstein-Barr virus** infection as an etiologic factor in **lupus**.

L6 ANSWER 1 OF 20 MEDLINE DUPLICATE 1

ACCESSION NUMBER: 2002185361 MEDLINE
DOCUMENT NUMBER: 21916414 PubMed ID: 11920408
TITLE: Autoantibody to hLSm4 and the heptameric LSm complex in anti-Sm sera.
AUTHOR: Eystathioy Theophany; Peebles Carol L; Hamel John C; Vaughn John H; Chan Edward K L
CORPORATE SOURCE: Scripps Research Institute, La Jolla, California 92037, USA.
CONTRACT NUMBER: M01-RR-00833 (NCRR)
SOURCE: ARTHRITIS AND RHEUMATISM, (2002 Mar) 46 (3) 726-34. Journal code: 0370605. ISSN: 0004-3591.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 200204
ENTRY DATE: Entered STN: 20020403
Last Updated on STN: 20020416
Entered Medline: 20020415

AB OBJECTIVE: To characterize the 15-kd human SmD-like autoantigen and its associated proteins previously shown to be recognized by IgM antibodies in patients with **Epstein-Barr virus** (**EBV**)-induced infectious mononucleosis. METHODS: The full-length complementary DNA for the 15-kd protein was expressed as recombinant protein and analyzed for reactivity using biochemical analysis and immunoprecipitation (IP). RESULTS: The 15-kd protein was determined to be the human like-Sm protein LSm4 (hLSm4). Rabbit antibody raised against the C-terminal polypeptide immunoprecipitated a 68-kd complex composed of LSm4 together with a group of smaller proteins ranging in size from 6.5 to 14 kd, consistent with the reported heptameric LSm complexes involved in U4/U6 duplex formation and messenger RNA (mRNA) decapping/degradation. About 80% of all anti-Sm sera from patients with **systemic lupus erythematosus** (**SLE**) recognized the hLSm4 in vitro translated product, while 6.7% (29 of 434) immunoprecipitated from cell extracts hLSm4 together with the other members of the hLSm complex. Four sera (0.92%) showed apparently exclusive reactivity to the hLSm complex in the absence of reactivity to Sm core proteins in the IP **assay**. CONCLUSION: These findings document that while IgM, but not IgG, autoantibodies to LSm4 were found in sera from patients with **EBV** infection, IgG autoantibodies to hLSm4 are **detected** in a large number of anti-Sm-positive sera from patients with **SLE**. Importantly, in a small number of anti-Sm sera the LSm complex can be recognized independently of the Sm core protein antigens. Our data introduce the concept that "Sm" autoantigens include Sm as well as LSm complexes involved in the maturation and degradation of mRNA.

L6 ANSWER 4 OF 20 MEDLINE DUPLICATE 3
ACCESSION NUMBER: 2002006445 MEDLINE
DOCUMENT NUMBER: 21128762 PubMed ID: 11224832
TITLE: **Epstein-Barr virus** burden in adolescents with **systemic lupus erythematosus**.
AUTHOR: Katz B Z; Salimi B; Kim S; Nsiah-Kumi P; Wagner-Weiner L
CORPORATE SOURCE: Children's Memorial Hospital, Division of Infectious Diseases, Chicago, IL, USA.
SOURCE: PEDIATRIC INFECTIOUS DISEASE JOURNAL, (2001 Feb) 20 (2) 148-53.
Journal code: 8701858. ISSN: 0891-3668.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200112
ENTRY DATE: Entered STN: 20020121
Last Updated on STN: 20020121
Entered Medline: 20011205

AB OBJECTIVE: We sought to determine whether patients with **systemic lupus erythematosus** (**SLE**) and a presumed primary or reactivated **Epstein-Barr virus** (**EBV**) serologic response had evidence of an active **EBV** infection. BACKGROUND: Patients with **SLE** often have what appears to be a primary or reactivated **EBV** serologic response. If these patients then present with fever, fatigue, adenopathy or leukopenia, it is not clear whether these symptoms are caused by worsening **SLE** or **EBV** infection. Establishing the correct diagnosis is crucial for management. METHODS: We examined the **EBV** burden in 13 adolescents with **SLE** and a presumed primary or reactivated **EBV** serologic response. All were taking prednisone; 2 each were also on azathioprine or intravenous pulse cyclophosphamide. **EBV** serologies were performed for all, and **EBV** burdens were assessed via immortalization **assays** and **EBV** DNA amplification of blood and saliva at least once. RESULTS: Seven patients had serologic patterns indicative of a primary **EBV** infection, while six had serologies indicative of a reactivated (secondary) **EBV** infection. Two of the latter were the only ones in whom a small amount of biologically active **EBV** was **detected**. CONCLUSION: In our series active **EBV** infection was not seen in most patients, despite serologic data that could be interpreted as a primary or reactivated infection. Thus the serologic profiles were more likely a consequence of immune dysregulation secondary to **SLE** or its therapy rather than rampant infection with **EBV**.

L6 ANSWER 5 OF 20 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 2001167503 EMBASE
TITLE: Anti-insulin antibodies and the natural autoimmune response in **systemic lupus erythematosus**
.
AUTHOR: Lidar M.; Braf A.; Givol N.; Langevitz P.; Pauzner R.; Many A.; Livneh A.
CORPORATE SOURCE: A. Livneh, Department of Medicine F, Sheba Medical Center, Tel-Hashomer 52621, Israel. alivneh@post.tau.ac.il
SOURCE: Lupus, (2001) 10/2 (81-86).
Refs: 35
ISSN: 0961-2033 CODEN: LUPUES
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 026 Immunology, Serology and Transplantation
LANGUAGE: English
SUMMARY LANGUAGE: English

AB **Systemic lupus erythematosus** (**SLE**) is characterized by the finding of ample serum autoantibodies. The role and the origin of many of these antibodies are still obscure. The aim of this work was to study the occurrence of anti-insulin antibodies (AIA) in **SLE**, and to postulate, based on AIA determination, on the mechanisms involved in the production of some autoantibodies in **SLE**. IgG and IgM AIA, anti-DNA antibodies (ADA) and anti-tetanus toxoid antibodies (ATA) were determined using ELISA in sera and B-lymphocytes culture media of 24 **SLE** patients, 10 healthy controls and 19 insulin-dependent diabetes mellitus (IDDM) patients. B- and T-lymphocytes were isolated using Ficoll gradient, depleted of T-cells using cyclosporin A, **EBV** infected and grown in medium. The frequencies of IgM-AIA and IgG-ADA were higher in **SLE** patients than in healthy controls ($P < 0.02$ and $P < 0.05$, respectively). The rate of IgM-AIA in **SLE** and IDDM was comparable, while IgG-AIA was significantly less common in **SLE** than in IDDM ($P < 0.05$). The prevalence of ATA in **SLE** patients and healthy controls was similar. These findings increase the spectrum of the humoral autoimmune response in **SLE** and suggest that part of it (natural autoantibodies) is independent of antigen driven response.

L6 ANSWER 15 OF 20 MEDLINE DUPLICATE 11

ACCESSION NUMBER: 93282876 MEDLINE
DOCUMENT NUMBER: 93282876 PubMed ID: 8389553
TITLE: Spontaneous production of **Epstein-Barr virus** by B lymphoblastoid cell lines obtained from patients with Sjogren's syndrome. Possible involvement of a novel strain of **Epstein-Barr virus** in disease pathogenesis.
AUTHOR: Tateishi M; Saito I; Yamamoto K; Miyasaka N
CORPORATE SOURCE: First Department of Medicine, Tokyo Medical and Dental University, Japan.
SOURCE: ARTHRITIS AND RHEUMATISM, (1993 Jun) 36 (6) 827-35. Journal code: 0370605. ISSN: 0004-3591.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199307
ENTRY DATE: Entered STN: 19930716
Last Updated on STN: 19970203
Entered Medline: 19930708

AB OBJECTIVE. To investigate the involvement of **Epstein-Barr virus** (**EBV**) in the pathogenesis of Sjogren's syndrome (SS) and to examine whether the spontaneous production of **EBV** is unique to SS B cell lines. METHODS. B cell lines were established from peripheral blood mononuclear cells (PBMC) of patients with **systemic lupus erythematosus**, rheumatoid arthritis, and SS. The cord blood immortalization **assay**, flow cytometric analysis, and polymerase chain reaction (PCR) were used to **detect EBV** production by B cell lines. RESULTS. SS B cell lines produced **EBV** at a higher frequency, and in significantly larger amounts, than did other B cell lines. However, no correlation with the amount of **EBV** DNA in the genome of B cell lines was found. PCR analysis revealed that **EBV** with a B95-8--like U2 region was dominant in SS B cell lines. CONCLUSION. Spontaneous, massive production of **EBV** by B cell lines is unique to SS, and may contribute to the polyclonal B cell activation seen in this disease.

L6 ANSWER 19 OF 20 MEDLINE DUPLICATE 13
ACCESSION NUMBER: 88081106 MEDLINE
DOCUMENT NUMBER: 88081106 PubMed ID: 2826058
TITLE: **Epstein-Barr virus** transformed B cell lines derived from patients with **systemic lupus erythematosus** produce a nephritic factor of the classical complement pathway.
AUTHOR: Hiramatsu M; Tsokos G C
CORPORATE SOURCE: Kidney Disease Section, National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, Maryland 20892.
SOURCE: CLINICAL IMMUNOLOGY AND IMMUNOPATHOLOGY, (1988 Jan) 46 (1) 91-9.
Journal code: 0356637. ISSN: 0090-1229.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198802
ENTRY DATE: Entered STN: 19900305
Last Updated on STN: 19900305
Entered Medline: 19880217

AB Nephritic factor of the classical complement pathway (C4NeF) is an IgG antibody which stabilizes the C3 convertase (C4b2a) and has been **detected** in sera from patients with **systemic lupus erythematosus** (**SLE**) and acute postinfectious glomerulonephritis. In order to study the production of nephritic factor (NeF), mononuclear cells were isolated from the peripheral blood of patients with **SLE** and infected with **Epstein-Barr virus** (**EBV**) to establish active B lymphocyte cell lines. Supernatants from 15 established B cell lines, as well as from 10 B cell lines established from normal individuals, were investigated for their ability to conserve the classical and the alternative pathway C3 convertases as assessed by EAC3bBb and EAC14b2a stabilizing **assays**. Supernatants from 2 of 15 B cell lines from patients with **SLE**, but none from normal individuals, stabilized the classical C3 convertase without having any effect on the alternative pathway C3 convertase. Using anti-human Ig affinity chromatography, we showed that C4NeF activity resided in the IgG fraction; the IgG fraction containing C4NeF activity bound to the C4b2a complex, but not to C4b alone. On gel electrophoresis, following reduction, the heavy chains were slightly heavier than the heavy chains of normal IgG. We were able to isolate C4NeF from the sera of the 2 patients with **SLE** from whom the positive supernatants were derived, but were unable to **detect** any C4NeF activity in the sera of the other 13 patients and the 10 normal individuals. Serum and B cell line supernatant-derived C4NeF exhibited comparable characteristics. We conclude that C4NeF produced in vitro by **EBV**-transformed B cell lines derived from patients with **SLE** is functionally similar to the conventional C4NeF in serum. These studies confirm the production of autoantibodies by B cells with the ability to stabilize the classical pathway C3 convertase in certain patients with **SLE**; stabilization of the C4b2a enzyme in these patients is an apparent mechanism for the development of hypocomplementemia. Finally, preparation of homogeneous C4NeF in vitro should improve our understanding of the role of autoantibodies in complement metabolic disturbances in autoimmune diseases.

L9 ANSWER 37 OF 37 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 79199099 EMBASE
DOCUMENT NUMBER: 1979199099
TITLE: Detection of the **Epstein-Barr virus**-associated antigens EA (early antigen) and VCA (Viral capsid antigen) by direct or indirect binding of iodinated antibodies to antigen immobilized in polyacrylamide gel.
AUTHOR: Dolken G.; Moar M.H.; Klein G.
CORPORATE SOURCE: Dept. Tum. Biol., Karolinska Inst., S-104 01 Stockholm 60, Sweden
SOURCE: European Journal of Cancer and Clinical Oncology, (1979) 15/5 (821-824).
CODEN: EJCAAH
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal
FILE SEGMENT: 016 Cancer
047 Virology
026 Immunology, Serology and Transplantation
011 Otorhinolaryngology
023 Nuclear Medicine
LANGUAGE: English
AB Immunofluorescence has been widely used as a qualitative technique, but this method is quite unsuitable for quantitation in a biochemical study of these antigens. Radioimmunoassays using antigen immobilized in polyacrylamide gel and iodinated antibodies were already developed for MA and EBNA. This paper describes an **assay detecting** also EA and/or VCA in the presence of EBNA.

L6 ANSWER 11 OF 20 MEDLINE DUPLICATE 8
ACCESSION NUMBER: 1998308611 MEDLINE
DOCUMENT NUMBER: 98308611 PubMed ID: 9644741
TITLE: [Significance of antibodies to herpesviridae viruses **detectable** in rheumatic diseases]. Zhachenie vyiavliaemykh pri revmaticheskikh zabolevaniiakh antitel k virusam semeistva herpesviridae].
AUTHOR: Egorova O N; Balabanova R M; Chuvirov G N
SOURCE: TERAPEVTICHESKII ARKHIV, (1998) 70 (5) 41-5.
Journal code: 2984818R. ISSN: 0040-3660.
PUB. COUNTRY: RUSSIA: Russian Federation
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199807
ENTRY DATE: Entered STN: 19980811
Last Updated on STN: 19980811
Entered Medline: 19980727

AB AIM: To **assay** antibodies to cytomegalovirus (CMV), herpes simplex virus type 1 and 2 (HSV-1, HSV-2) and **Epstein-Barr virus** (**EBV**) in rheumatic patients and to clarify clinical correlations. MATERIALS AND METHODS: A total of 66 patients were examined: 7, 19, 6, 3, 5, 2 and 24 with rheumatoid arthritis (RA), **systemic lupus erythematosus** (**SLE**), reactive arthritis (ReA), scleroderma systematica (SS), erythema nodosum (EN), hemorrhagic vasculitis (HV), active or chronic viral infection (A/CVI), respectively. Clinical, laboratory tests, tests for specific IgM- and IgG-antibodies to CMV, HSV-1, HSV-2, **EBV**, x-ray examinations were performed. RESULTS: IgG-antibodies to CMV were **detected** in 79%, VCA-IgG-antibodies to **EBV** in 70.3%, EA-IgG-antibodies to **EBV** in 56.6%, IgG-antibodies to HSV-1 in 42.1% of patients. Active CMV infection was diagnosed in 27.8%, active **EBV** infection in 56.6%, combination of CMV and **EBV** infection in 46.9% of cases. High titers of antibodies to CMV and **EBV** correlated with such symptoms as fever, arthritis, myalgia, carditis, hepatomegalia, migrating erythematous eruption. Acute-phase indices were related to high titers of antibodies to CMV and **EBV** . Elevated titers of antibodies to CMV and **EBV** were registered both in untreated patients and in patients treated with corticosteroids, nonsteroid antiinflammatory drugs and aminoquinoline drugs. CONCLUSION: In differential diagnosis of rheumatic diseases it is necessary to consider possibility of CMV and **EBV** infections. If these are **detected**, antiviral measures should be taken.

L6 ANSWER 9 OF 20 MEDLINE DUPLICATE 7
ACCESSION NUMBER: 1999327433 MEDLINE
DOCUMENT NUMBER: 99327433 PubMed ID: 10399234
TITLE: [The significance of determining antibodies to viruses of the Herpesviridae family in rheumatic diseases]. Znachenie opredeleniia antitel k virusam semeistva Herpesviridae pri revmaticheskikh zabolevaniiakh.
AUTHOR: Egorova O N; Balabanova R M; Chuvirov G N
SOURCE: TERAPEVTICHESKII ARKHIV, (1999) 71 (5) 57-61.
Journal code: 2984818R. ISSN: 0040-3660.
PUB. COUNTRY: RUSSIA: Russian Federation
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199907
ENTRY DATE: Entered STN: 19990806
Last Updated on STN: 19990806
Entered Medline: 19990728

AB AIM: **Assay** of antibodies to cytomegalovirus (CMV), herpes simplex virus type 1 and 2 (HSV-1 and HSV-2) and **Epstein-Barr virus** (**EBV**) in rheumatic patients. Specification of their correlations with clinical symptoms. MATERIALS AND METHODS: 66 rheumatic patients were examined for the above antibodies. The admission diagnosis of rheumatic disease (RD) was confirmed in 42 of them. 24 were diagnosed to have active or chronic viral infection (A/CVI) simulating **systemic lupus erythematosus** (**SLE**), rheumatoid arthritis (RA) and other RD. RESULTS: IgG-antibodies to CMV and VCA-IgG to **EBV** were **detected** in 79 and 70.3% of the examinees, respectively. In **SLE** more frequent were IgM-antibodies to CMV (78.9%), in RA-IgM-antibodies to CMV (85.7%) and IgG-antibodies to **EBV** (85.7%) while in A/CVI--to CMV (IgM--86.4%), **EBV** (IgG--80%; IgM--73.7%), HSV-1 (IgM--57.1%). Analysis of clinical correlations indicated that high titers to CMV and to **EBV** are related in RD patients. CONCLUSION: It is necessary to examine rheumatic patients for antibodies to Herpesviridae viruses and prescribe antiviral drugs.

L6 ANSWER 7 OF 20 MEDLINE DUPLICATE 5
ACCESSION NUMBER: 2000143514 MEDLINE
DOCUMENT NUMBER: 20143514 PubMed ID: 10677247
TITLE: Histone-containing immune complexes are to a large extent responsible for anti-dsDNA reactivity in the Farr **assay** of active **SLE** patients.
AUTHOR: Hylkema M N; van Bruggen M C; ten Hove T; de Jong J; Swaak A J; Berden J H; Smeenk R J
CORPORATE SOURCE: Department of Autoimmune Diseases, CLB, Amsterdam, The Netherlands.
SOURCE: JOURNAL OF AUTOIMMUNITY, (2000 Mar) 14 (2) 159-68. Journal code: 8812164. ISSN: 0896-8411.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200004
ENTRY DATE: Entered STN: 20000505
Last Updated on STN: 20000505
Entered Medline: 20000421

AB Increased titres of anti-dsDNA antibodies, especially if of high avidity, are associated with renal exacerbations in patients with **systemic lupus erythematosus** (**SLE**). One of the most reliable **assays** to measure anti-dsDNA antibodies, the Farr **assay**, is believed to **detect** preferentially high avidity antibodies. Purified non-complexed monoclonal antibodies (mAbs) against nucleosomes, obtained from mice with **SLE**, are not reactive in the Farr **assay**, but can become so once complexed to nucleosomes. These Farr-positive, nucleosome containing, immune complexes were also able to bind in vivo to the glomerular basement membrane (GBM), predominantly via heparan sulphate (HS). To evaluate whether in **SLE** patients the same kind of immune complexes are responsible for Farr reactivity, IgG from serum or plasma was isolated under dissociating and physiological conditions. We observed that after purification under dissociating conditions, Farr reactivity was significantly decreased ($P<0.0001$) in contrast to reactivity with histones and two 'control' antigens: **Epstein Barr Virus** (**EBV**) and Ro/SS-A. Reactivity with nucleosomes also decreased after purification, although to a lesser extent. Plasma purified under physiological conditions showed no decrease in Farr reactivity. The importance of histones for the generation of immune complexes is supported by the two following observations. Firstly, the presence of histones could be demonstrated in serum and plasma of **SLE** patients but not in serum of healthy controls or in IgG preparations purified under dissociating conditions. Secondly, Farr reactivity of purified IgG preparations could be restored by addition of purified histones. From these studies we conclude that histones containing immune complexes are responsible for a large part of the Farr reactivity in active **SLE**, and are therefore indirectly implicated in the pathogenesis of **lupus** nephritis.

DOCUMENT NUMBER: 92190431
TITLE: Transient lupus anticoagulant induced by **Epstein-Barr virus** infection.
AUTHOR: Yamazaki M; Asakura H; Kawamura Y; Ohka T; Endo M; Matsuda T
CORPORATE SOURCE: Department of Internal Medicine (III), Kanazawa University School of Medicine, Japan.
SOURCE: BLOOD COAGULATION AND FIBRINOLYSIS, (1991 Dec) 2 (6) 771-4.
Journal code: A5J. ISSN: 0957-5235.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199206

AB A 25-year-old woman presented with an episode of left calf deep vein thrombosis and pulmonary thrombosis. She was found to have a lupus anticoagulant with anticardiolipin **antibodies**, some **autoimmune antibodies** and **antibodies** for primary Epstein-Barr (EB) virus infection. Six months later, lupus anticoagulant and other **autoimmune antibodies** were found to be negative and EB virus **antibodies** were shown to be seroconverted. We suggest that the transient presence of lupus anticoagulant was due to EB virus infection caused by activation of polyclonal B-lymphocytes.

L4 ANSWER 23 OF 26 CANCERLIT
AN 86620257 CANCERLIT
DN 86620257
TI MAPPING THE ANTIGENIC REGIONS OF EPSTEIN-BARR NUCLEAR ANTIGEN USING SYNTHETIC PEPTIDES.
AU Rhodes G; Houghten R A; Carson D A; Valbracht J; Vaughan J H
CS Scripps Clinic and Research Foundation, La Jolla, CA 92037.
SO UCLA Symp Mol Cell Biol, (1984). New Ser 21, pp. 487-96.
DT (MEETING PAPER)
FS ICDB
LA English
EM 198604
AB The viral DNA encoding for the Epstein-Barr nuclear antigen (**EBNA**) contains a repeating sequence that is expressed as a run of over 200 amino acids consisting only of glycine and alanine. The authors synthesized nine peptides from the middle, ends, and outside of this repeating region of the protein; six of these peptides were used to detect antibodies to **EBNA** in human sera. Antipeptide activities of specimens of human sera were measured with the aid of an enzyme-linked assay in microtiter plates. No sera of 27 individuals who were Epstein-Barr viral capsid antigen (VCA) negative reacted against any of six peptides used in the assay; in contrast, all VCA+ samples reacted with the peptides, the highest recognition generally occurring with the peptides containing all glycine and alanine. IgG antibody titers to the peptides in patients with acute and convalescent mononucleosis rose in conjunction with those directed against **EBNA**. When tested at a dilution of 1/320, sera of rheumatoid arthritis patients had antibody levels higher than those for normal subjects, for every peptide tested; systemic **lupus** erythematosus patients had an average titer higher than that for normal subjects, only for the glycine-alanine-containing peptides. Antibody titers of sera from Sjorgren syndrome and progressive systemic sclerosis patients had titers that did not differ from those of normal subjects. Sera with high titers to **EBNA** recognized some of the peptide sequences better than others; this finding implies that human antibodies to **EBNA** are directed at selected portions of the protein. Further studies of peptides should provide a method of mapping the antigenic determinants. (12 Refs)

ACCESSION NUMBER: 97104028 EMBASE
DOCUMENT NUMBER: 1997104028
TITLE: Immunoblotting reactivity of sera from patients with **autoimmune** connective tissue diseases against Epstein-Barr nuclear antigen (EBNA) polypeptides.
AUTHOR: Ngou J.; Segondy M.
CORPORATE SOURCE: M. Segondy, Laboratoire de Virologie, Hopital Saint-Eloi, Centre Hospitalier Universitaire, 34295 Montpellier Cedex 5, France
SOURCE: Serodiagnosis and Immunotherapy in Infectious Disease, (1996) 8/2 (105-108).
Refs: 21
ISSN: 0888-0786 CODEN: SIIDE3
PUBLISHER IDENT.: S 0888-0786(96)01059-1
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
026 Immunology, Serology and Transplantation
LANGUAGE: English
SUMMARY LANGUAGE: English

AB The **antibody** responses to Epstein-Barr nuclear antigen (EBNA) polypeptides were analyzed by immunoblotting in 93 patients with **autoimmune** connective tissue diseases (ACTD) in comparison with 50 clinically healthy control subjects. **Antibody** frequencies to EBNA-2, -4, and -6 were significantly higher in patients than in controls.

Among the patients with ACTD, those with systemic lupus erythematosus (SLE) showed a significant increase in the frequency of anti-EBNA-3 **antibodies**. These results confirm the particularity of the **antibody** responses against **Epstein-Barr virus** (EBV) polypeptides in patients with ACTD; they could either reflect basic immune disturbances or suggest a participation of EBV in the pathogenesis of the disease.

ACCESSION NUMBER: 87216595 MEDLINE
DOCUMENT NUMBER: 87216595
TITLE: Expression of a germline human kappa chain-associated **cross-reactive** idiotype after in vitro and in vivo infection with Epstein-Barr **virus**.
AUTHOR: Silverman G J; Carson D A; Patrick K; Vaughan J H; Fong S
CONTRACT NUMBER: AG 04100 (NIA)
AM 25443 (NIADDK)
AM 21175 (NIADDK)
+
SOURCE: CLINICAL IMMUNOLOGY AND IMMUNOPATHOLOGY, (1987 Jun) 43 (3) 403-11.
Journal code: DEA. ISSN: 0090-1229.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 198709

AB The mouse monoclonal **antibody** 17.109 recognizes a **cross-reactive** idiotype (CRI) associated with kappa IIIb light chains of human IgM-rheumatoid factor (RF) paraproteins. The 17.109 idiotypic determinant is encoded by one or a group of closely related V kappa genes.

The association of the idiotype with IgM- and IgA-rheumatoid factors in certain **autoimmune diseases** necessitates an understanding of how human B lymphocytes can be induced to express the idiotype. To investigate the cellular expression of the 17.109 CRI, peripheral blood lymphocytes from normal donors were stimulated in vitro with Epstein-Barr **virus** (EBV) and pokeweed mitogen (PWM). EBV induced greater expression of IgM-associated 17.109 CRI than did PWM. The 17.109 CRI was preferentially associated with IgM rather than with IgG. In vivo EBV infection was studied in college students with infectious mononucleosis and displayed similar elevation of IgM-associated 17.109 CRI in sera obtained at presentation of clinical illness. Later, IgM levels declined while IgG-associated 17.109 CRI rose. The 17.109 idiotype was **unrelated** to **antibodies** against the Epstein-Barr **virus** nuclear antigen and the **viral** capsid antigen and was probably due to generalized activation of early B cells. These observations support the hypothesis that the 17.109 CRI is expressed by in vitro and in vivo EBV-infected cells. The 17.109 idiotype identifies a highly conserved V kappa gene product, which is expressed preferentially after EBV infection, but not exclusively with RF autoantibodies.

DOCUMENT NUMBER: 1994084024
TITLE: Soluble Fc.epsilon.RII/CD23 in patients with **autoimmune** diseases and **Epstein-Barr virus**-related disorders: Analysis by ELISA for soluble Fc.epsilon.RII/CD23.
AUTHOR: Yoshikawa T.; Nanba T.; Kato H.; Hori K.; Inamoto T.; Kumagai S.; Yodoi J.
CORPORATE SOURCE: Department of Biological Responses, Institute for Virus Research, Kyoto University, 53 Shogoin-Kawahara-cho, Sakyo, Kyoto 606-01, Japan
SOURCE: ImmunoMethods, (1994) 4/1 (65-71).
ISSN: 1058-6687 CODEN: IMUME8
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
005 General Pathology and Pathological Anatomy
026 Immunology, Serology and Transplantation
029 Clinical Biochemistry
048 Gastroenterology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
AB The low-affinity Fc receptor for IgE (Fc.epsilon.RII/CD23) and its soluble form (sCD23, IgE-binding factor) have multiple functions, and enhanced levels of these are associated with various immunological diseases. We established two sensitive ELISA systems using enzyme-conjugated mAb and biotinylated mAb. The detection limits of the ELISA systems were 0.03 and 1.0 ng/ml, which showed good correlation in the range 1.0-10 ng/ml. In the ELISA system using enzyme-conjugated mAb, the average sCD23 concentration in 303 normal healthy volunteers was 1.4 .+-. 0.3 ng/ml. In the ELISA system using biotinylated mAb, sCD23 levels in normal healthy volunteers showed almost the same values. In patients with **autoimmune** diseases such as rheumatoid arthritis, systemic lupus erythematosus, Sjogren syndrome, progressive systemic sclerosis, and mixed connective tissue disease, the sCD23 levels were significantly higher than those in normal individuals. Furthermore, in **Epstein-Barr virus**-related disorders after liver transplantation with immunosuppression, plasma levels of sCD23 rapidly increased to more than 12 ng/ml when clinical symptoms were evident. In addition, the sCD23 values remained high, although elevated GOT levels gradually decreased to standard values and EBV hepatitis improved. These data suggest that sCD23 levels are a sensitive marker of **autoimmune** diseases and EBV-related disorders in addition to allergic disorders. The ELISA system for sCD23 may be an additional **diagnostic** tool in estimating the clinical courses of these diseases.